TRANSPORTATION RESEARCH

Part B: Methodological

List of Contents and Author Index

Volume 33B, 1999

PERGAMON

Transportation Research

an international journal **Part B: Methodological**

Editor-in-Chief

FRANK A. HAIGHT
Institute of Transportation Studies, University of California, Irvine, CA 92697, U.S.A.
e-mail: fahaight@uci.edu
PUBLICATIONS COORDINATOR: Devin R. Defeo

Associate Editors

CARLOS DAGANZO
Department of Civil Engineering and Institute of Transportation Studies,
University of California, Berkeley, CA 94720, U.S.A.
e-mail: daganzo@ce.berkeley.edu

FRANK S. KOPPELMAN
Civil Engineering Department, McCormick School of Engineering, Northwestern University, Evanston IL 60208-3109, U.S.A.
e-mail: fkoppelman@nwu.edu

NATHAN H. GARTNER
Department of Civil Engineering, University of Massachusetts, Lowell,
MA 01854, U.S.A.
e-mail: Nathan_Gartner@uml.edu

MICHAEL G. H. BELL
Transport Operations Research Group, Department of Civil Engineering,
University of Newcastle upon Tyne NE1 7RU, U.K.
e-mail: M.G.H.Bell@newcastle.ac.uk

Editorial Advisory Board

SIAMAK ARDEKANI, Arlington, TX, U.S.A.
CHANDRA BHAT, Amherst, MA, U.S.A.
MICHEL BIERLAIRE, Cambridge, MA, U.S.A.
PIET H.L. BOVY, Delft, The Netherlands
WERNER BRILON, Bochum, Germany
JAMES F. Campbell, St. Louis, MO, U.S.A.
MALACHY CAREY, Belfast, U.K.
TERRY L. FRIESZ, Fairfax, VA, U.S.A.
RANDOLPH HALL, Los Angeles, CA, U.S.A.
DIRK HEIDEMANN, Kuenzelsau, Germany
BENJAMIN G. HEYDECKER, London, U.K.
GENNARO IMPROTA, Napoli, Italy
ANDRÉ LAGEVIN, Montreal, Canada
JEAN-PATRICK LEBACQUE, Marne-la-Vallee, France
HONG K. LO, Kowloon, Hong Kong
MIKE MAHER, Edinburgh, U.K.
FRED L. MANNERING, Seattle, WA, U.S.A.
HENK MEURS, Amersfoort, The Netherlands
BIN RAN, Madison, WI, U.S.A.
ROD TROUTBECK, Brisbane, Qld, Australia
DAVID P. WATLING, Leeds, U.K.
BYUNG-WOOK WIE, Honolulu, HI, U.S.A.
HAI YANG, Kowloon, Hong Kong
H. MICHAEL ZHANG, Davis, CA, U.S.A.

© 1999 Elsevier Science Ltd. All rights reserved

Author Service Department: For queries relating to the general submission of articles (including electronic text and artwork) and the status of accepted manuscripts, please contact the Author Service Department: *e-mail*: authors@elsevier.co.uk; *Fax*: + 44 (0)1865 843905; *Tel*: + 44 (0)1865 843900.

Frequency: Published 8 issues/annum in January, February, April, May, June, August, September and November

Advertising information. Advertising orders and enquiries can be sent to: **USA, Canada and South America:** Mr Tino de Carlo, The Advertising Department, Elsevier Science Inc., 655 Avenue of the Americas, New York, NY 10010-5107, USA; phone (+1) (212) 633 3815; fax: (+1) (212) 633 3820; e-mail: t.decarlo@elsevier.com **Japan:** The Advertising Department, Elsevier Science K.K., 915 Higashi-Azabu 1-chome, Minato-ku, Tokyo 106-0044, Japan; phone (+81) (3) 5561 5033; fax: (+81) (3) 5561 5047. **Europe and ROW:** Rachel Gresle-Farthing, The Advertising Department Elsevier Science Ltd., The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, UK; phone (+44) (1865) 843565; fax; (+44) (1865) 843976; e-mail: r.gresle-farthing@elsevier.co.uk

Publication information: Transportation Research: Part B (ISSN 0191-2615). For 1999, volume 33 is scheduled for publication. Subscription prices are available upon request from the Publisher or from the Regional Sales Office nearest you or from this journal's website (http://www.elsevier.com/locate/trb). Further information is available on this journal and other Elsevier Science products through Elsevier's website: (http://www.elsevier.nl). Subscriptions are accepted on a prepaid basis only and are entered on a calendar year basis. Issues are sent by standard main (surface within Europe, air delivery outside Europe). Priority rates are available upon request. Claims for missing issues should be made within six months of the date of dispatch.

Orders, claims, and product enquiries: please contact the Customer Support Department at the Regional Sales Office nearest you:

New York: Elsevier Science, PO Box 945, New York, NY 10159-0945, USA; Tel.: (+1) (212) 633 3730 [toll free number for North American customers: 1-888-4ES-INFO (437-4636)]; fax: (+1) (212) 633 3680; e-mail: usinfo-f@elsevier.com

Amsterdam: Elsevier Science, PO Box 211, 1000 AE Amsterdam, The Netherlands; Tel.: (+31) 20 4853757; fax: (+31) 20 4853432; e-mail: nlinfo-f@elsevier.nl

Tokyo: Elsevier Science, 9-15 Higashi-Azabu 1-chome, Minato-ku, Tokyo 106, Japan; Tel.: (+81) (3) 5561 5033; fax: (+81) (3) 5561 5047; e-mail: info@elsevier.co.jp

Singapore: Elsevier Science, No. 1 Temasek Avenue, #17-01 Millenia Tower, Singapore 039192; Tel.: (+65) 434 3727; fax: (+65) 337 2230; e-mail: asiainfo@elsevier.com.sg

Rio de Janeiro: Elsevier Science, Rua Sete de Setembro 111/16 Andar, 20050-002 Centro, Rio de Janeiro - RJ, Brazil; Tel.: (+55) (21) 509 5340; fax: (+55) (21) 507 1991; e-mail: elsevier@campus.com.br [Note (Latin America): for orders, claims and help desk information, please contact the Regional Sales Office in New York as listed above]

Back Issues: Back issues of all previously published volumes are available direct from Elsevier Science Offices. Complete volumes and single issues can be purchased for 1993–1997. Earlier issues are available in high quality photo-duplicated copies as complete volumes only.

LIST OF CONTENTS

Number 1

H.M. Zhang	1	A mathematical theory of traffic hysteresis
Michael J. Cassidy and **Robert L. Bertini**	25	Some traffic features at freeway bottlenecks
Paolo Ferrari	43	A model of urban transport management
Denis Bolduc	63	A practical technique to estimate multinomial probit modles in transportation

Number 2

José Holguín-Veras and **Sergio Jara-Díaz**	81	Optimal pricing for priority service and space allocation in container ports
C.O. Tong and **S.C. Wong**	107	A stochastic transit assignment model using a dynamic schedule-based network
Jose M. del Castillo	123	A heuristic for the travelling salesman problem based on a continuous approximation
Dirk Heidemann	153	Some critical remarks on a class of traffic flow models

Number 3

Louie Nan Liu and **John F. McDonald**	157	Economic efficiency of second-best congestion pricing schemes in urbn highway systems
Robert B. Dial	189	Minimal-revenue congestion pricing part I: A fast algorithm for the single-origin case
Baibing Li and **Bart De Moor**	203	Recursive estimation based on the equality-constrained optimization for intersection origin-destination matrices
John H.E. Taplin, David A. Hensher and **Brett Smith**	215	Preserving the symmetry of estimated commuter travel elasticities

Number 4

Torbjörn Larsson and **Michael Patriksson**	233	Side constrained traffic equilibrium models–analysis, computation and applications
John C. Clements	265	The optimal control of collision avoidance trajectories in air traffic management
David Watling	281	Stability of the stochastic equilibrium assignment problem: a dynamical systems approach

Number 5

D.J. Dailey	313	A statistical algorithm for estimating speed from single loop volume and occupance measurements
Nathan Webster and **Lily Elefteriadou**	323	A simulation study of truck passenger car quivalents (PCE) on basic freeway sections
G.F. Newell	337	Delays caused by a queue at a freeway exit ramp
W.H.K. Lam, Z.Y. Gao, K.S. Chan and **H. Yang**	351	A stochastic user equilibrium assignment model for congested transit networks
H.P. Lo, N. Zhang and **W.H.K. Lam**	369	Decomposition algorithm for statistical estimation of OD matric with random link choice proportions from traffic counts

Number 6

B. Adenso-Díaz, M. Oliva González and **P. González-Torre**	387	On-line timetable re-scheduling in regional train services
H.M. Zhang	399	Analyses of the stability and wave properties of a new continuum traffic theory
H.M. Zhang and **W.W. Recker**	417	On optimal freeway ramp control policies for congested traffic corridors
Do H. Nam and **Donald R. Drew**	437	Automatic measurement of traffic variables for intelligent transportation systems applications

Number 7

Young Tae Son	459	Queueing delay models for two-lane highway work zones
Malachy Carey	473	Ex ante heuristic measures of schedule reliability
Chandra Bhat	495	An analysis of evening commute stop-making behavior using repeated choice observations from a multi-day survey
İsmail Şahin	511	Railway traffic control and train scheduling based on inter-train conflict management

Number 8

K.G. Goulias	535	Longitudinal analysis of activity and travel pattern dynamics using generalized mixed Markov latent class models
A.X. Horbury	559	Using non-real-time Automatic Vehicle Location data to improve bus services
D. Boyce and **L-G. Mattsson**	581	Modeling residential location choice in relation to housing location and road tolls on congested urban highway networks
U. Hjorth	593	The inherent precision of regression estimated route probabilities
S.C. Wong	609	On the convergence of Bell's logit assignment formulation